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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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			2162	

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/782,229		BERNSTEIN ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	JEAN B. FLEURANTIN		2162	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 67-75 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 67-75 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/5/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This is in response to the preliminary amendment submitted on 2/19/04.

Claims 1-66 have been canceled.

Claims 67-75 have been added

Claims 67-75 are presented for examination.

#### *Information Disclosure Statement*

The information disclosure statement (IDS) submitted on submitted on 04/05/04. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

The Drawings submitted on 2/19/04 are acknowledged.

#### *Response to Remarks/arguments*

In response to applicant's argument that "the present application is in condition for allowance" it is respectfully submitted that the amendment submitted on 2/19/04 does not place the application in condition for allowance in view of the analysis as indicated in the following rejections.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-8 of Patent No. 6,728,726 contain every element of claims 67-75 of the instant application. Claims 67-75 of the instant application and thus anticipate the claims of the instant application. Claims of the instant application therefore are not patently distinct from the earlier patent claims and as such are unpatentable over obvious-type double patenting. A later application claim is not patentably distinct from an earlier claim if the later claim is anticipated by the earlier claim.

Instant application No. 10/782229	Patent No. 6,728,726
<p>A computerized method for retrieving data for a set of objects prior to an explicit request for access to the data, the set of objects containing at least one object, <u>each object having an attribute</u>, the method comprising:</p> <p>creating a structure context description that describes the set of objects;</p> <p>associating the structure context description with each object in the set; and</p> <p>fetching related object data for objects in the set from physical storage upon an access to an attribute of one object in the set, wherein the fetching comprises</p> <p>first retrieving requested object data using the attribute,</p> <p>retrieving object data related to the first requested object data using the attribute, and</p> <p>placing in cache the related object data for future use.</p>	<p>A computerized method for retrieving data for an object or related objects prior to an explicit request for access to the data by a computing application comprising the steps of:</p> <p>creating a structure context description identifying a structure context that comprises a set containing objects, <u>wherein the objects have at least one attribute</u>, wherein the structure context description is stored in a relationship table having a plurality of rows containing items that describe the structure context, wherein the structure context description contains enough information to retrieve all of the rows in the relationship table that describe all of the items in the structure context;</p> <p>associating the structure context description with each object in the set, wherein the associating step associates the structure context description to each object in the set by creating a unique identifier between the structure context description and each object; and</p> <p>fetching related object data for objects in the set by a data storage system from a physical storage system upon an access to an attribute of one object in the set, wherein the fetching step comprises</p> <p>first retrieving object data requested by the computing application using the attribute, returning the first requested object data to the requesting computing application,</p> <p>retrieving related object data to the first requested object data using the attribute, and</p> <p>placing in cache the related object data for future use by the application.</p>

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus)." ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

"Claims 67-75 are generic to the species of invention covered by claims 1-8 of the patent. Thus, the generic invention is "anticipated" by the species of the patented invention. Cf., Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (holding that earlier species disclosure in the prior art defeats any generic claim). This court's predecessor has held that, without a terminal disclaimer, the species claims preclude issuance of the generic application. In re Van Ornum, 686 F.2d 937, 944, 214 USPQ 761, 767 (CCPA 1982); Schneller, 397 F.2d at 354. Accordingly, absent a terminal disclaimer, claims 1 and were properly rejected under the doctrine of obviousness-type double patenting." (In re Goodman (CAFC) 29 USPQ2d 2010 (12/3/1993).

Art Unit: 2162

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 67-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,765,159 issued to Srinivasan ("Srinivasan") in view of U.S. Patent No. 6,389,460 issued to Stewart et al., ("Stewart").

As per claim 67, Srinivasan discloses "computerized method for retrieving data for a set of objects prior to an explicit request for access to the data" (i.e., retrieving data in response to an object query (request); see col. 7, lines 33-39), "the set of objects containing at least one object, each object having an attribute" (i.e., attributes related to objects; see col. 7, lines 22-27), the method comprising:

"creating a structure context description that describes the set of objects" (In light the specification at paragraph [0017], the purposed of creating a structure context is for associating that structure context description with every object in the structure. The method of creating a new path whose attribute (object) value matches the current path is disclosed by Srinivasan col. 10, lines 40-44);

"associating the structure context description with each object in the set" (i.e., set of columns mapping to the base attributes (objects); see col. 5, lines 10-12); and

"fetching related object data for objects in the set from physical storage upon an access to an attribute of one object in the set" (i.e., object prefetching will be retrieved (from the relational database management system (**rdbms**)); see col. 6, lines 30-40), wherein the fetching comprises

"first retrieving requested object data using the attribute" (i.e., first query capable of retrieving all attributes objects; see col. 6, lines 29-32),

"retrieving object data related to the first requested object data using the attribute" (i.e., query retrieving only base attributes object; see col. 6, lines 29-32). Srinivasan fails to explicitly disclose step of

Art Unit: 2162

placing in cache the related object data for future use. However, Stewart discloses placing in cache the related object data for future use (see Stewart col. 6, lines 57-61).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Srinivasan by placing in cache the related object data for future use as disclosed by Stewart (see Stewart col. 8, lines 52-61). Such a modification would allow the method of Srinivasan to provide database structure for storage of the objects and retrieval of object states as attributes of associated files in the files system (see Stewart col. 4, lines 1-3), thereby improving the accuracy and the reliability of the prefetching and caching persistent objects.

As per claim 68, Srinivasan further discloses "storing the structure context description in one of memory of a client application program" (i.e., computer program residing in the memory and executing; col. 3, lines 44-49), "memory allocated to a data storage system, and a table of a relational database" (i.e., schema mapping columns of the relational table; see col. 5, lines 10-16).

As per claim 69, Srinivasan discloses "fetching by an object repository related object data for objects in the set" (i.e., object prefetching will be retrieved (from the rdbms); see col. 6, lines 30-40).

As per claim 70, Srinivasan discloses "fetching related object data for the set and accessing an attribute of the first object occur asynchronously" (In light the specification at paragraph [0064], the purposed of prefetching an attribute (A) is for performing asynchronously access to (A) in the initial object. The method for enabling access to both base and attributes of the object is discloses by Srinivasan col. 7, lines 24-27).



Art Unit: 2162

As per claim 71, Srinivasan discloses "computerized system comprising a computer comprising a processor, a memory, and a computer-readable medium operatively coupled together" (i.e., a processor, a memory, and a computer-readable medium and connecting to a bus; see col. 3, lines 35-43 and Fig. 2);

"an operating environment executing in the processor from the computer readable medium" (i.e., computer program(s) residing in the main memory, executing by the processors in the computer system; see col. 3, lines 45-49);

"a persistent storage system operative to store objects having attributes and structures" (In light the specification at paragraph [0059], the purposed of collecting objects is for storing in the persistent storage of an object repository. The method for storing data in the rdbms according to relational database schema is disclosed by Srinivasan col. 4, lines 13-14);

"a data storage system executing in the processor from the computer-readable medium and "under control of the operating environment" (i.e., computer program(s) residing in the main memory, executing by the processors in the computer system; see col. 3, lines 45-49), "said data storage system operative to maintain objects in the persistent storage system" (In light the specification at paragraph [0059], the purposed of collecting objects is for storing in the persistent storage of an object repository. The method for storing data in the rdbms according to relational database schema is disclosed by Srinivasan col. 4, lines 13-14) and "further operative to retrieve data for an object or related objects prior to an explicit request for access to the data" (i.e., retrieving data in response to an object query (request); see col. 7, lines 33-39),

"such that a first object for a requested data item is first retrieved" (i.e., first query capable of retrieving all attributes objects; see col. 6, lines 29-32) and "remaining related objects to the requested data item are then retrieved" (i.e., query retrieving only base attributes object; see col. 6, lines 29-32). Srinivasan fails to explicitly disclose placed in a cache for future use. However, Stewart discloses placed in a cache for future use (see Stewart col. 6, lines 57-61).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Srinivasan by placing in a cache for future use as disclosed by Stewart (see Stewart col. 8, lines 52-61). Such a modification would allow the method of Srinivasan to provide

Art Unit: 2162

database structure for storage of the objects and retrieval of object states as attributes of associated files in the files system (see Stewart col. 4, lines 1-3), thereby improving the accuracy and the reliability of the prefetching and caching persistent objects.

As per claim 72, Srinivasan discloses "a computer-readable medium having computer readable instructions to cause a computer to perform a method" (i.e., a computer programs residing in the memory and executing by processors in the computer; see col. 3, lines 45-51 and Fig. 2) comprising:

"creating a structure context description that describes the set of objects each having an attribute" (In light the specification at paragraph [0017], the purposed of creating a structure context is for associating that structure context description with every object in the structure. The method of creating a new path whose attribute (object) value matches the current path is disclosed by Srinivasan col. 10, lines 40-44);

"associating the structure context description with each object in the set" (i.e., set of columns mapping to the base attributes (objects); see col. 5, lines 10-12); and

"fetching related object data for objects in the set from physical storage upon an access to an attribute of one object in the set" (i.e., object prefetching will be retrieved (from the rdbms); see col. 6, lines 30-40), wherein the fetching comprises

"first retrieving requested object data using the attribute" (i.e., first query capable of retrieving all attributes objects; see col. 6, lines 29-32),

"retrieving object data related to the first requested object data using the attribute" (i.e., query retrieving only base attributes object; see col. 6, lines 29-32). Srinivasan fails to explicitly disclose step of placing in cache the related object data for future use. However, Stewart discloses placing in cache the related object data for future use (see Stewart col. 6, lines 57-61).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Srinivasan by placing in cache the related object data for future use as disclosed by Stewart (see Stewart col. 8, lines 52-61). Such a modification would allow the method of Srinivasan to provide database structure for storage of the objects and retrieval of object states as

Art Unit: 2162

attributes of associated files in the files system (see Stewart col. 4, lines 1-3), thereby improving the accuracy and the reliability of the prefetching and caching persistent objects.

As per claim 73, Srinivasan discloses "computerized method for retrieving data for an object prior to an explicit request for access to the data" (i.e., retrieving data in response to an object query (request); see col. 7, lines 33-39), the method comprising:

"creating a structure context description that describes the set of objects" (In light the specification at paragraph [0017], the purposed of creating a structure context is for associating that structure context description with every object in the structure. The method of creating a new path whose attribute (object) value matches the current path is disclosed by Srinivasan col. 10, lines 40-44);

"associating the structure context description with each object in the set" (i.e., set of columns mapping to the base attributes (objects); see col. 5, lines 10-12); and

"fetching rat least one related data item in the object from physical storage upon an access to a data item in the object" (i.e., object prefetching will be retrieved (from the rdbms); see col. 6, lines 30-40), wherein the fetching comprises

"first retrieving requested object data using the attribute" (i.e., first query capable of retrieving all attributes objects; see col. 6, lines 29-32),

"retrieving the related data items described by the structure context description" (i.e., query retrieving only base attributes object; see col. 6, lines 29-32). Srinivasan fails to explicitly disclose step of placing in cache the related data items for future use. However, Stewart discloses placing in cache the related object data for future use (see Stewart col. 6, lines 57-61).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Srinivasan by placing in cache the related data items for future use as disclosed by Stewart (see Stewart col. 8, lines 52-61). Such a modification would allow the method of Srinivasan to provide database structure for storage of the objects and retrieval of object states as attributes of associated files in the files system (see Stewart col. 4, lines 1-3), thereby improving the accuracy and the reliability of the prefetching and caching persistent objects.

As per claim 74, Srinivasan discloses "a computer-readable medium having computer readable instructions to cause a computer to perform a method" (i.e., a computer programs residing in the memory and executing by processors in the computer; see col. 3, lines 45-51 and Fig. 2) comprising:

"creating a structure context description that describes the set of objects" (In light the specification at paragraph [0017], the purposed of creating a structure context is for associating that structure context description with every object in the structure. The method of creating a new path whose attribute (object) value matches the current path is disclosed by Srinivasan col. 10, lines 40-44);

"associating the structure context description with each object in the set" (i.e., set of columns mapping to the base attributes (objects); see col. 5, lines 10-12); and

"fetching rat least one related data item in the object from physical storage upon an access to a data item in the object" (i.e., object prefetching will be retrieved (from the rdbms); see col. 6, lines 30-40), wherein the fetching comprises

"first retrieving requested object data using the attribute" (i.e., first query capable of retrieving all attributes objects; see col. 6, lines 29-32),

"retrieving the related data items described by the structure context description" (i.e., query retrieving only base attributes object; see col. 6, lines 29-32). Srinivasan fails to explicitly disclose step of placing in cache the related data items for future use. However, Stewart discloses placing in cache the related object data for future use (see Stewart col. 6, lines 57-61).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Srinivasan by placing in cache the related data items for future use as disclosed by Stewart (see Stewart col. 8, lines 52-61). Such a modification would allow the method of Srinivasan to provide database structure for storage of the objects and retrieval of object states as attributes of associated files in the files system (see Stewart col. 4, lines 1-3), thereby improving the accuracy and the reliability of the prefetching and caching persistent objects.

As per claim 75, Srinivasan discloses "computerized system comprising a computer comprising a processor, a memory, and a computer-readable medium operatively coupled together" (i.e., a processor, a memory, and a computer-readable medium and connecting to a bus; see col. 3, lines 35-43 and Fig. 2);

"an operating environment executing in the processor from the computer readable medium" (i.e., computer program(s) residing in the main memory, executing by the processors in the computer system; see col. 3, lines 45-49);

"a persistent storage system operative to store an object" (In light the specification at paragraph [0059], the purposed of collecting objects is for storing in the persistent storage of an object repository. The method for storing data in the rdbms according to relational database schema is disclosed by Srinivasan col. 4, lines 13-14); and

"a data storage system executing in the processor from the computer-readable medium and "under control of the operating environment" (i.e., computer program(s) residing in the main memory, executing by the processors in the computer system; see col. 3, lines 45-49), "said data storage system operative to maintain objects in the persistent storage system" (In light the specification at paragraph [0059], the purposed of collecting objects is for storing in the persistent storage of an object repository. The method for storing data in the rdbms according to relational database schema is disclosed by Srinivasan col. 4, lines 13-14) and "further operative to retrieve data for an object or related objects prior to an explicit request for access to the data" (i.e., retrieving data in response to an object query (request); see col. 7, lines 33-39),

"such that a first object for a requested data item is first retrieved" (i.e., first query capable of retrieving all attributes objects; see col. 6, lines 29-32) and "remaining related objects to the requested data item are then retrieved" (i.e., query retrieving only base attributes object; see col. 6, lines 29-32). Srinivasan fails to explicitly disclose placed in a cache for future use. However, Stewart discloses placed in a cache for future use (see Stewart col. 6, lines 57-61).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Srinivasan by placing in a cache for future use as disclosed by Stewart (see Stewart col. 8, lines 52-61). Such a modification would allow the method of Srinivasan to provide

Art Unit: 2162

database structure for storage of the objects and retrieval of object states as attributes of associated files in the files system (see Stewart col. 4, lines 1-3), thereby improving the accuracy and the reliability of the prefetching and caching persistent objects.

Art Unit: 2162

#### CONTACT INFORMATION

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN B. FLEURANTIN whose telephone number is 571 – 272-4035. The examiner can normally be reached on 7:05 to 4:35.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 571 – 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean Bolte Fleurantin

Patent Examiner

Technology Center 2100

July 28, 2006